MODIS TECHNICAL TEAM MEETING

March 20, 1996

The MODIS Technical Team Meeting was chaired by Vince Salomonson. Present were Dick Weber, Harry Montgomery, Bruce Guenther, Barbara Conboy, David Herring, Dorothy Hall, Bob Murphy, Bill Barnes, Steve Ungar, Wayne Esaias, Paul Chan, Chris Justice, Ray Taylor, and Ed Masuoka.

1.0 SCHEDULE OF EVENTS

March 26 - 27	MODIS Quarterly Review at SBRS
April 15	Quarterly Reports due to Barbara Conboy
April 30	MCST-Science Team Precursor Meeting at GSFC
May 1 - 2	MODIS Software Acceptance Review (tentative dates)
May 1 - 3	MODIS Science Team Meeting at GSFC
May 16 - 17	SWAMP Land Discipline Review
June 11 - 13	Primary Productivity Workshop at GSFC

2.0 MINUTES OF THE MEETING

Salomonson told the team that he plans to attend the upcoming SWAMP Meeting and will deliver a brief status report on the MODIS instrument. He solicited highlight information to include in his presentation.

2.1 MODIS Project Reports

Weber reported that the Protoflight Model (PFM) optics are reassembled for all four optical stages. All bands now meet the band-to-band registration requirement and most of them meet the registration goal. Additionally, the scan mirror has been mounted on the mainframe. The PFM aft optics assembly (AOA) will be vibrated again next week.

The radiative cooler was thermally tested by SBRS and was found to be functioning properly. Weber believes that we have a good margin on the cooler.

The PFM will be completed and undergoing testing by June 1996. Delivery of the PFM is scheduled for Oct. 31, 1996; however, according to Weber, the currently projected delivery is in January 1997Ñabout 49 working days later than originally scheduled. Weber stated that Project is actively looking for ways to move the delivery date closer to the original deadline.

Weber announced that the SRCA collimator has now arrived at SBRS.

Weber set up a splinter meeting session after the Quarterly Review at SBRS to examine the fixturing question with regards to the additional solar diffuser needed for the reflectance tests. MCST personnel will attend that session.

2.2 MCST Reports

Guenther announced that he met recently with Phil Slater and they produced a draft agenda for the April 30 MODIS Calibration Working Group Meeting (see Attachment 1).

In the last 3 months, MCST has published a revised ATBD. MCST has also attended three field audits, in which there was good participation from the Science Team members. According to those investigators, MCST is on the right track in its plans to calibrate MODIS.

Guenther pointed out that he is awaiting actual PFM test data from SBRS before MCST can adequately characterize MODISÕ scattering.

Guenther reported that the Version 1 Level 1B software has been delivered to SDST. He stated that, according to MCSTÕs recent survey, MODIS Science Team members prefer to work with reflectance data rather than radiance data.

Guenther reiterated that it is essential to do spacecraft maneuvers to view cold deep space in order to examine the angular dependence of thermal emissivity for the scan mirror. He pointed out that a lunar view is important too, but is not essential. Barnes added that Project would probably do such a maneuver three times over the life of the mission.

2.3 An Update on Considerations for a Follow-on MODIS

Taylor showed CAD (computer-aided design) possible volumetric drawings of the EOS AM-2 instruments, relative to the volumes of current instrument designs, in which the volumes of MODIS and MISR have been reduced. There was no change in the volumes of CERES and EOSP. Taylor estimated that, in these drawings, the dry mass of the EOS AM-2 payload is about 35 percent of the entire spacecraft mass. The same ratio holds true for EOS AM-1. He noted, however, that the computer processing hardware has been moved from all instruments to the spacecraft platform.

Weber questioned the placement of MODIS on the bottom center of the spacecraft. He stated that there should be no reflection off of anything else on the platform hitting the MODIS diffuser.

Taylor said that he is working on updating the performance specifications for the follow-on MODIS to drive the technical drawings. Barnes pointed out that, according to TaylorÕs drawings, CERES and EOSP havenÕt changed, LATI is a new instrument, and MISR has merely given up some camerasÑbasically, no

change in the engineering of any of those instruments. He asked why MODIS is the only instrument that is expected to be redesigned significantly.

Taylor responded that he doesnÕt currently have the manpower to study a redesign of each EOS AM-2 instrument. However, he believes that all EOS AM-2 instruments will inevitably be reduced in mass and volume. Salomonson encouraged Taylor to explore possible collaborations with engineers at NASA Langley Research Center in the redesign effort.

2.4 Ocean Group Reports
Esaias announced that he is planning to hold a Primary Productivity Workshop at GSFC on June 11 - 13.

2.5 MODLAND Reports
Justice reported that the beta delivery of the Version 1 software for MODLAND is on schedule. The Beta Software is now being tested at the GSFC DAAC.

2.6 MAST Reports
Herring presented a revised strawman agenda for the upcoming MODIS Science Team Meeting (see Attachment 2).

3.0 ACTION ITEMS

1. *Murphy*: collect inputs from MODIS Science Team members and prepare a statement for the team leaderÕs signature on which data products should be up for bid under the new DAAC Federation. *{STATUS??}*

4.0 ATTACHMENTS

NOTE: All attachments referenced below are maintained in MODARCH and are available for distribution upon request. Please contact David Herring, MAST Technical Manager, at (301) 286-9515, Code 920, NASA/Goddard Space Flight Center, Greenbelt, MD 20771 if you desire copies of any attachments.

1. MODIS Calibration Working Group Agenda, Bruce Guenther
2. MODIS Science Team Meeting Agenda, David Herring